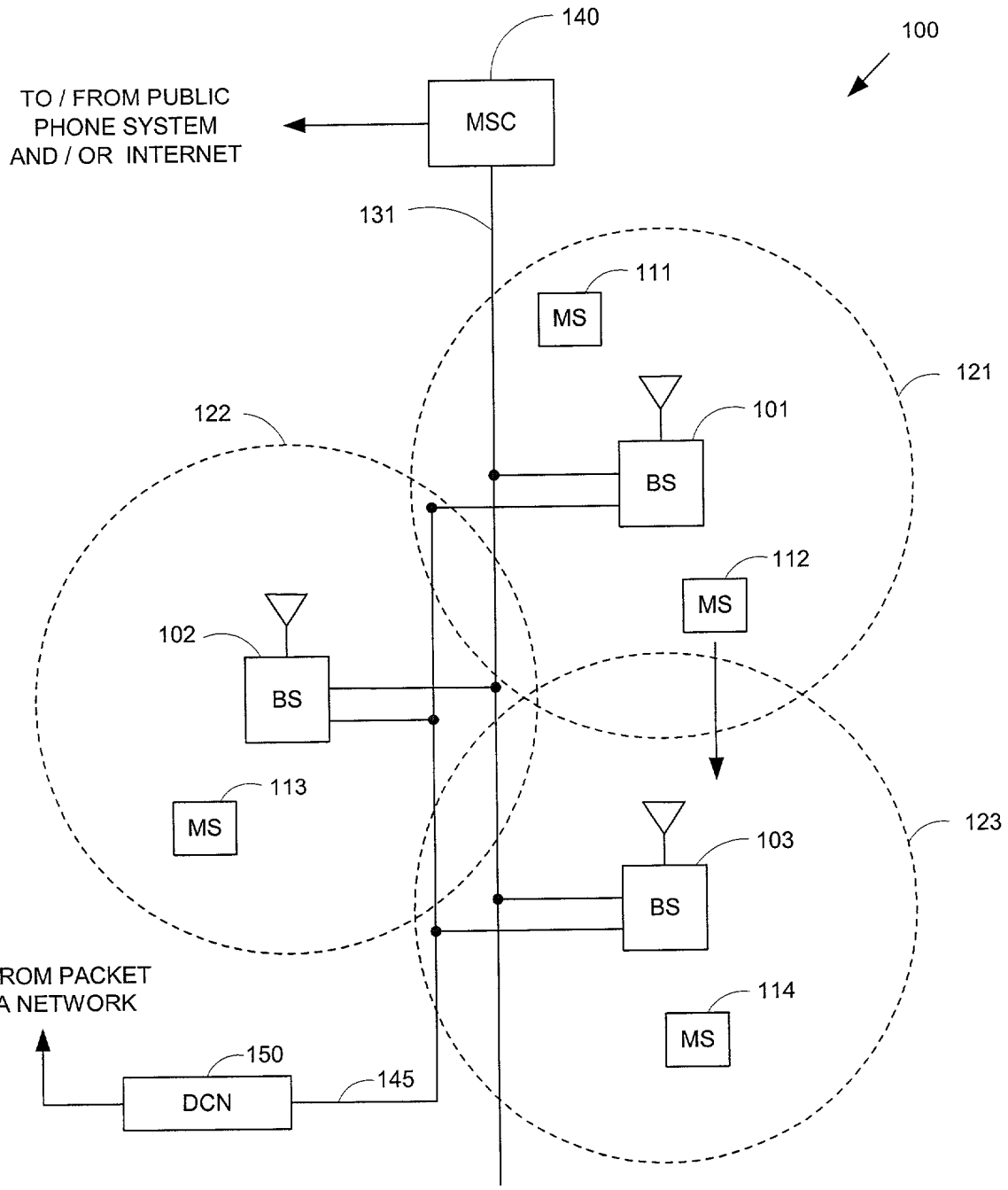

FIGURE 1
PRIOR ART

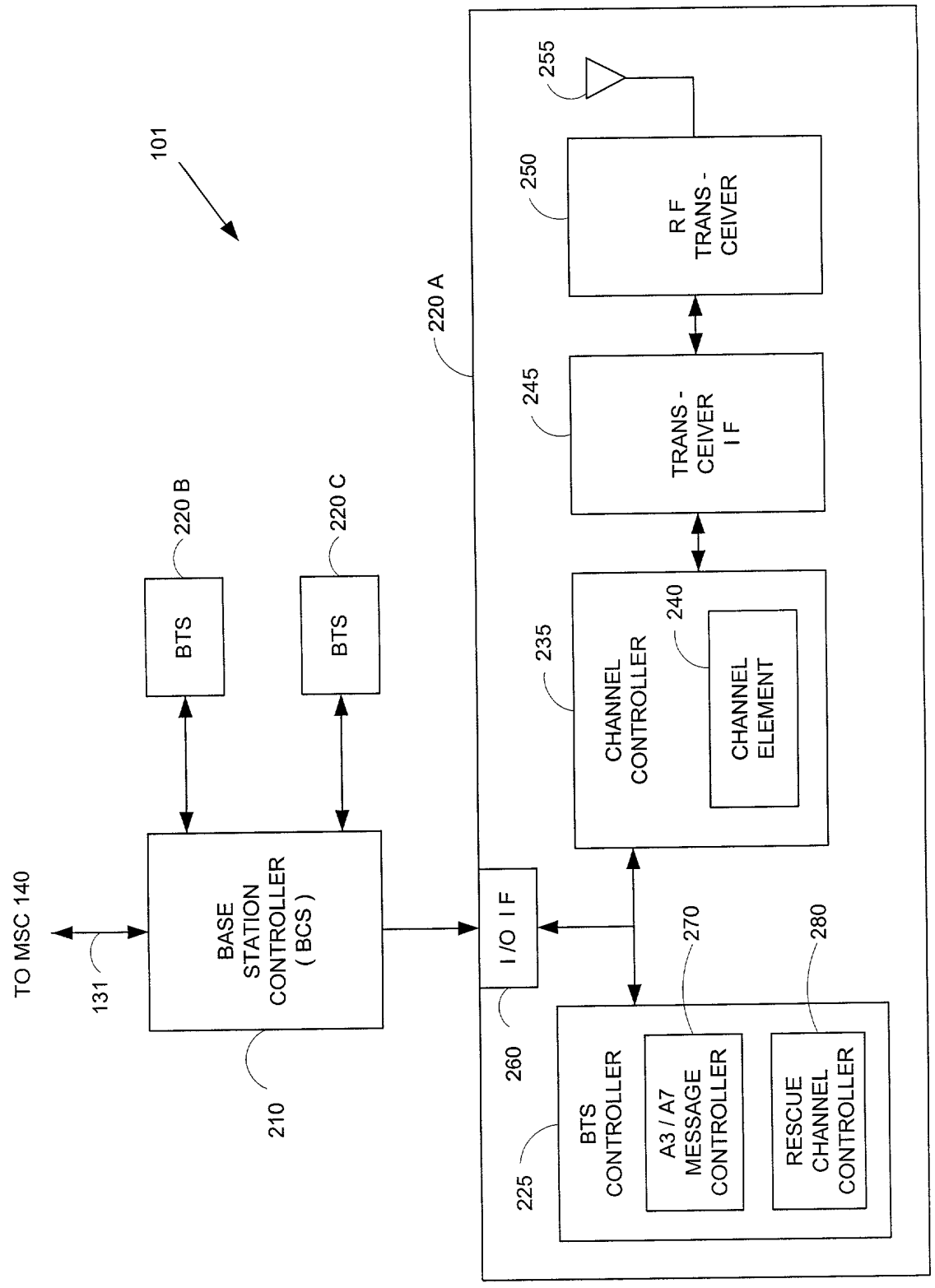
101
TO MSC 140
131
BASE STATION CONTROLLER (BCS)
210
BTS
220 B
BTS
220 C
220 A
I /O I F
260
BTS CONTROLLER
225
A3 / A7 MESSAGE CONTROLLER
270
RESCUE CHANNEL CONTROLLER
280
CHANNEL CONTROLLER
235
CHANNEL ELEMENT
240
TRANS - CEIVER I F
245
R F TRANS - CEIVER
250
255

FIGURE 2

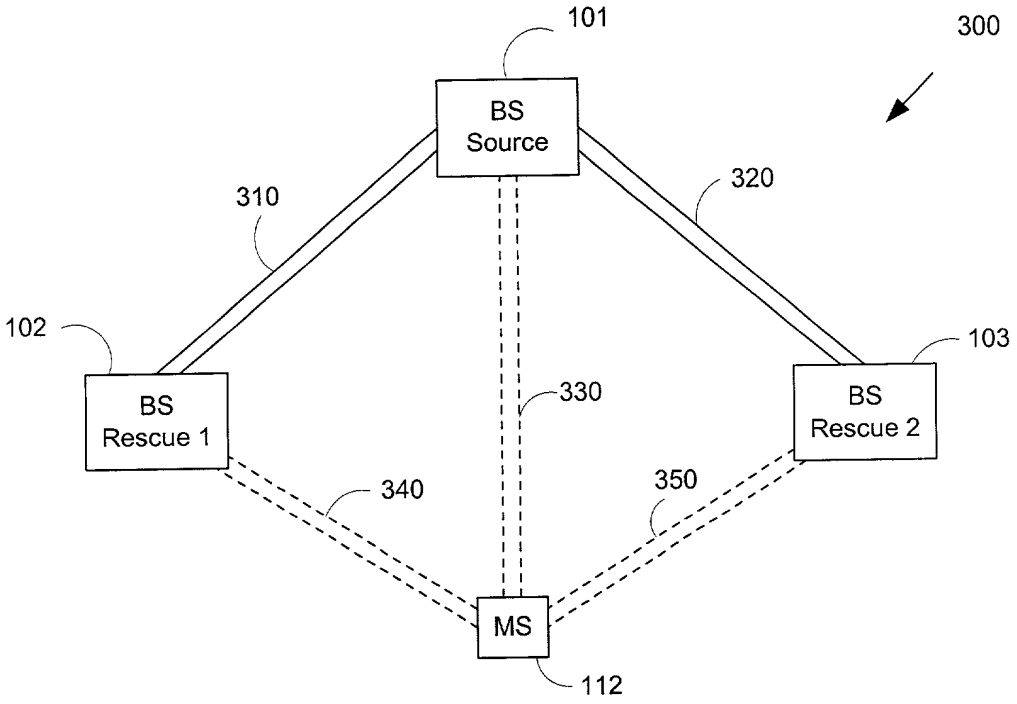

FIGURE 3

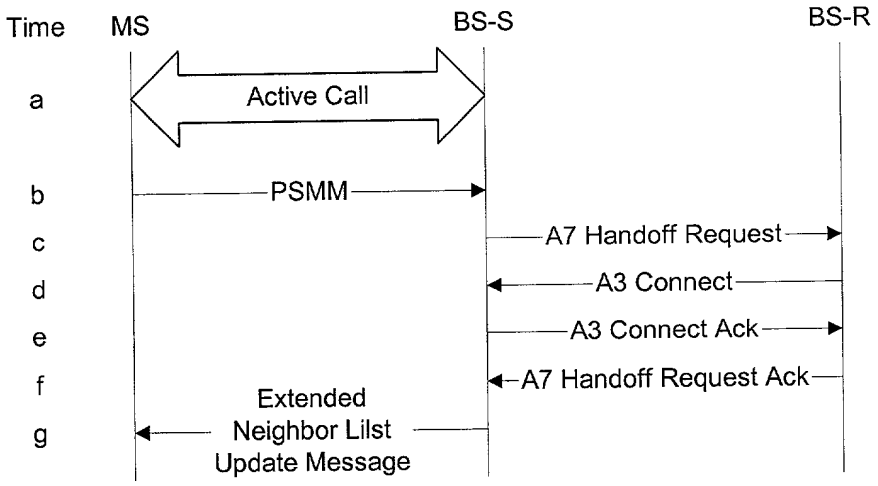

FIGURE 4

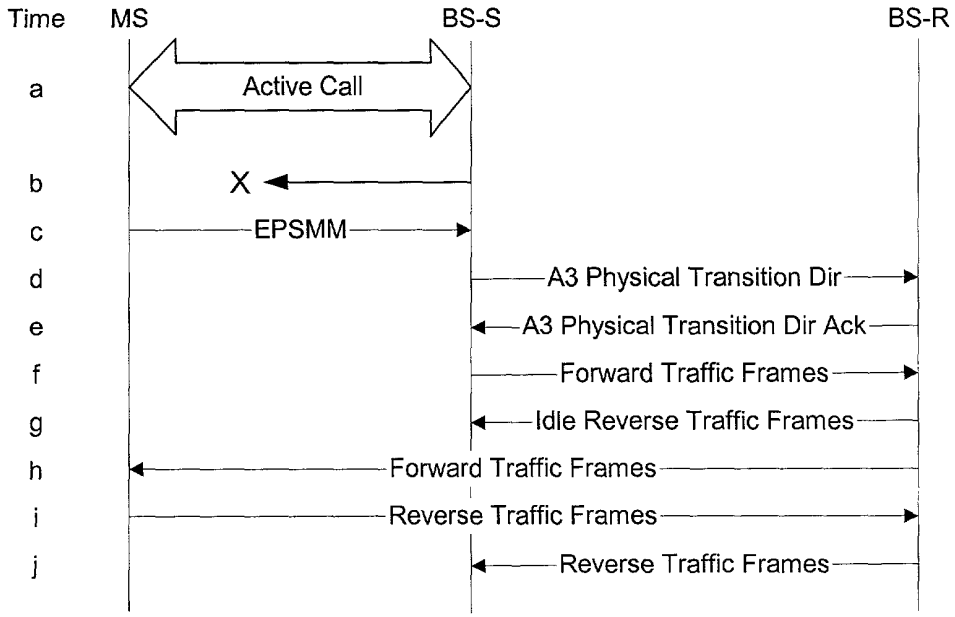

FIGURE 5

7	6	5	4	3	2	1	0	Octet
Physical Channel Info: A3 / A7 Element Identifier = [07H]								1
Length = [06H]								2
Reserved = [0000]				Frame Offset = [0H - FH]				3
A3 Traffic Channel Protocol Stack = [001]			Pilot Gating Rate = [00, 01, 10]		ARFCN (High Part) = [000 - 111]			4
ARFCN (Low Part) = [00H - FFH]								5
Count of Physical Channels = [01H - 04H]								6
Reserved = [0000]				OTD = [0, 1]	Count of Physical Channels = [001 - 100]			7
Physical Channel 2 = 0H - N/A 1H - FCH 2H - SCH_0 3H - DCCH				Physical Channel 1 = 0H - IS-95 1H - FCH 2H - SCH_0 3H - DCCH 4H - Rescue Channel				8
Physical Channel 4 = 0H - N/A 1H - FCH 2H - SCH_0 3H - DCCH 4H - SCH_1				Physical Channel 3 = 0H - N/A 1H - FCH 2H - SCH_0 3H - DCCH 4H - SCH_1				9

FIGURE 6

7	6	5	4	3	2	1	0	Octet
A3 Connect Information: A3 / A7 Element Identifier = [1BH]								1
Length = [< Variable >]								2
Reserved = [000]			Physical Channel Type = 0H - Fundamental Channel (IS-95) 1H - Fundamental Channel (FCH) 2H - Supplemental Channel (SCH_0) 3H - Dedicated Control Channel (DCCH) 4H - Supplemental Channel (SCH_1) 5H - Rescue Channel				New A3 Indicator = [0,1] (exist, new)	3

FIGURE 7

Information Element	Section Reference	Element Direction	Type	
Message Type II	6.2.2.5	SDU → BTS	M	
Call Connection Reference	6.2.2.98	SDU → BTS	O	R
CDMA Long Code Transition Info	6.2.2.128	SDU → BTS	O	C
Channel Element I D	6.2.2.132	SDU → BTS	O	C
Privacy Info	6.2.2.143	SDU → BTS	O	C
A3 Traffic Circuit I D	6.2.2.96	SDU → BTS	O	C
Reverse Pilot Gating Rate	6.2.2.33	SDU → BTS	O	C
IS-2000 Forward Power Control Mode	6.2.2.177	SDU → BTS	O	C
IS-2000 Mobile Pilot Gain	6.2.2.180	SDU → BTS	O	C
A3 Destination I D	6.2.2.175	SDU → BTS	O	C
Rescue Channel Indicator (RCI)	6.2.2.xxx	SDU → BTS	O	C

FIGURE 8

7	6	5	4	3	2	1	0	Octet
Rescue Channel Indicator: A3 / A7 Element Identifier = [xxH]								1
Reserved = [0000 000]							RCI = 1	2

FIGURE 9

Value (Hex)	Physical Channel Type
0H	IS-95 Fundamental Channel TIA / EIA / IS-95
1H	Fundamental Channel (FCH) TIA / EIA / IS-2000
2H	Supplemental Channel (SCH_0) TIA / EIA / IS-2000
3H	Dedicated Control Channel (DCCH) TIA / EIA / IS-2000
4H	Supplmental Channel (SCH_1) TIA / EIA / IS-2000
5H	Rescue Channel (RC) TIA / EIA / IS-2000-B
All Other Values	Reserved

FIGURE 10

Information Element	Section Reference	Element Direction	Type	
Message Type II	6.2.2.5	SDU → BTS	M	
Call Connection Reference	6.2.2.98	SDU → BTS	O	R
Rescue Channel Indicator	6.2.2.xxx	SDU → BTS	O	R
A3 Destination I D	6.2.2.175	SDU → BTS	O	C

FIGURE 11

7	6	5	4	3	2	1	0	Octet
Message Type I I = [xxH]								1
Call Connection Reference: A1 Element Identifier = [3FH]								1
Length = [08H]								2
(MSB)	Market I D = [< any value >]							3
							(LSB)	4
(MSB)	Generating Entity I D = [< any value >]							5
							(LSB)	6
(MSB)								7
Call Connection Reference = [< any value >]								8
								9
							(LSB)	10
Rescue Channel Indicator: A3 / A7 Element Identifier = [xxH]								1
Reserved = [0000 000]							RCI	2
A3 Destination I D : A3 / A7 Element Identifier = [55H]								1
Length of A3 Destination I D = [01H - 08H]								2
(LSB)								3
A3 Destination I D = [< any value >]								...
							(LSB)	k

FIGURE 12

Information Element	Section Reference	Element Direction	Type	
Message Type II	6.2.2.5	BTS → SDU	M	
Call Connection Reference	6.2.2.98	BTS → SDU	O	R
PMC Cause	6.2.2.99	BTS → SDU	O	C
A3 Destination I D	6.2.2.175	BTS → SDU	O	C
A7 Destination I D	6.2.2.173	BTS → SDU	O	C

FIGURE 13

7	6	5	4	3	2	1	0	Octet
Message Type I I = [xxH]								1
Call Connection Reference: A1 Element Identifier = [3FH]								1
Length = [08H]								2
(MSB)	Market I D = [< any value >]							3
							(LSB)	4
(MSB)	Generating Entity I D = [< any value >]							5
							(LSB)	6
(MSB)								7
Call Connection Reference = [< any value >]								8
								9
							(LSB)	10
PMC Cause: A3 / A7 Element Identifier = [05H]								1
Length = [01H]								2
PMC Cause Value = [0AH (Resources Not Available)]								3
A3 Destination I D: A3 / A7 Element Identifier = [55H]								1
Length of A3 Destination I D = [01H - 08H]								2
(MSB)								3
A3 Destination I D = [< any value >]								. . .
							(LSB)	k
A3 Destination I D: A3 / A7 Element Identifier = [2DH]								1
Length of A7 Destination I D = [01H - 08H]								2
(MSB)								3
A7 Destination I D = [< any value >]								. . .
							(LSB)	k

FIGURE 14

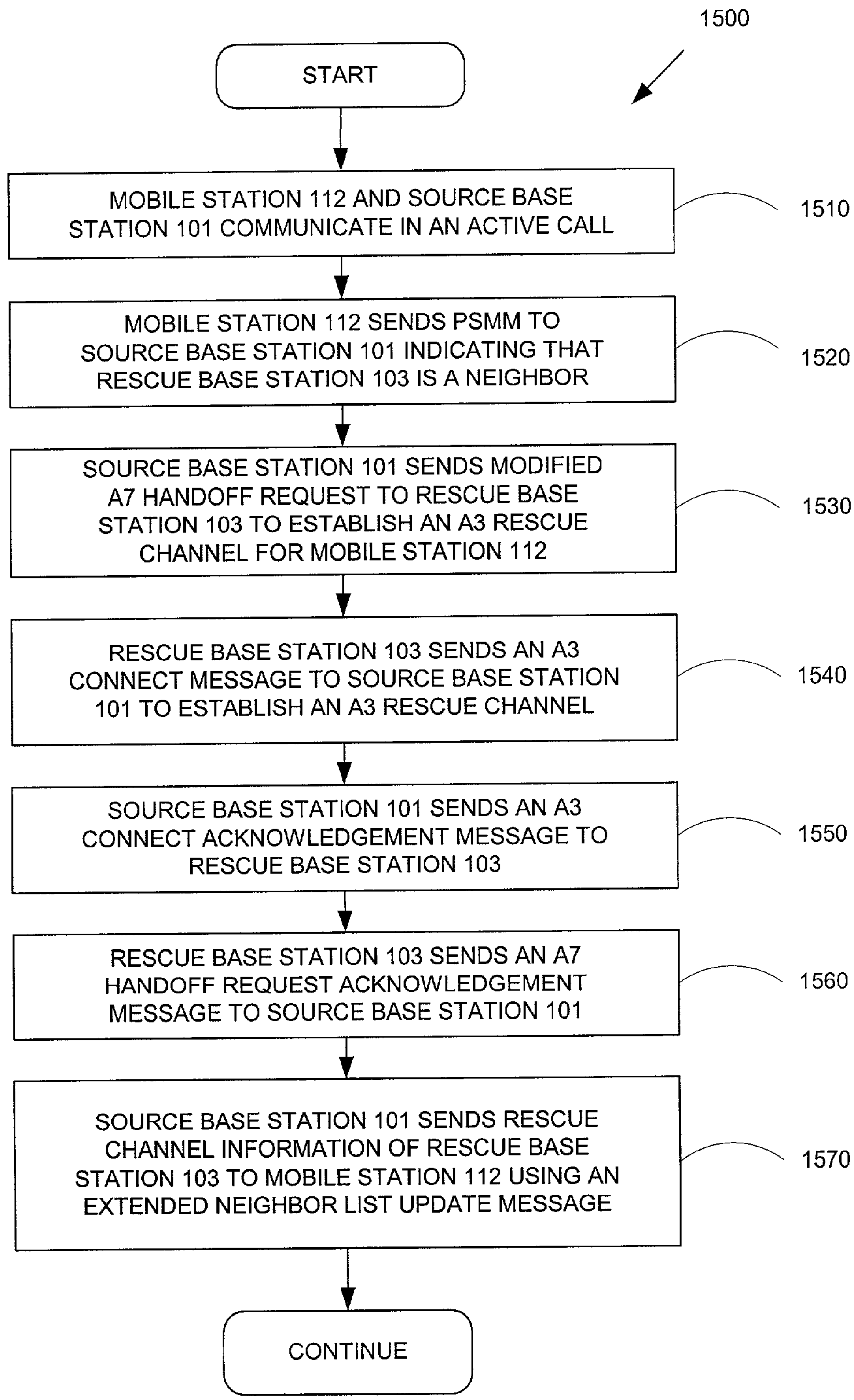
1500
START
MOBILE STATION 112 AND SOURCE BASE STATION 101 COMMUNICATE IN AN ACTIVE CALL
1510
MOBILE STATION 112 SENDS PSMM TO SOURCE BASE STATION 101 INDICATING THAT RESCUE BASE STATION 103 IS A NEIGHBOR
1520
SOURCE BASE STATION 101 SENDS MODIFIED A7 HANDOFF REQUEST TO RESCUE BASE STATION 103 TO ESTABLISH AN A3 RESCUE CHANNEL FOR MOBILE STATION 112
1530
RESCUE BASE STATION 103 SENDS AN A3 CONNECT MESSAGE TO SOURCE BASE STATION 101 TO ESTABLISH AN A3 RESCUE CHANNEL
1540
SOURCE BASE STATION 101 SENDS AN A3 CONNECT ACKNOWLEDGEMENT MESSAGE TO RESCUE BASE STATION 103
1550
RESCUE BASE STATION 103 SENDS AN A7 HANDOFF REQUEST ACKNOWLEDGEMENT MESSAGE TO SOURCE BASE STATION 101
1560
SOURCE BASE STATION 101 SENDS RESCUE CHANNEL INFORMATION OF RESCUE BASE STATION 103 TO MOBILE STATION 112 USING AN EXTENDED NEIGHBOR LIST UPDATE MESSAGE
1570
CONTINUE

FIGURE 15

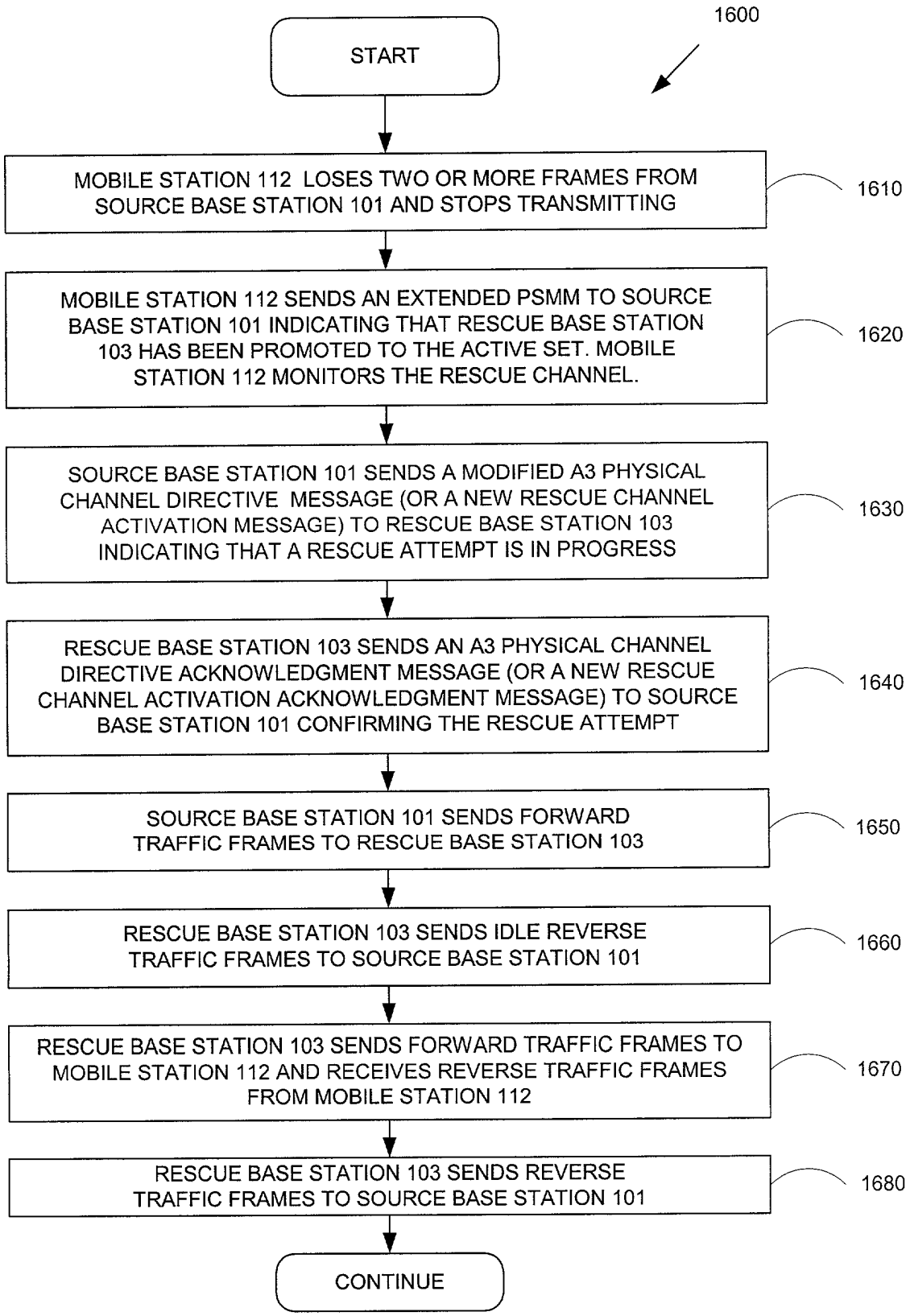
1600
START
MOBILE STATION 112 LOSES TWO OR MORE FRAMES FROM SOURCE BASE STATION 101 AND STOPS TRANSMITTING
1610
MOBILE STATION 112 SENDS AN EXTENDED PSMM TO SOURCE BASE STATION 101 INDICATING THAT RESCUE BASE STATION 103 HAS BEEN PROMOTED TO THE ACTIVE SET. MOBILE STATION 112 MONITORS THE RESCUE CHANNEL.
1620
SOURCE BASE STATION 101 SENDS A MODIFIED A3 PHYSICAL CHANNEL DIRECTIVE MESSAGE (OR A NEW RESCUE CHANNEL ACTIVATION MESSAGE) TO RESCUE BASE STATION 103 INDICATING THAT A RESCUE ATTEMPT IS IN PROGRESS
1630
RESCUE BASE STATION 103 SENDS AN A3 PHYSICAL CHANNEL DIRECTIVE ACKNOWLEDGMENT MESSAGE (OR A NEW RESCUE CHANNEL ACTIVATION ACKNOWLEDGMENT MESSAGE) TO SOURCE BASE STATION 101 CONFIRMING THE RESCUE ATTEMPT
1640
SOURCE BASE STATION 101 SENDS FORWARD TRAFFIC FRAMES TO RESCUE BASE STATION 103
1650
RESCUE BASE STATION 103 SENDS IDLE REVERSE TRAFFIC FRAMES TO SOURCE BASE STATION 101
1660
RESCUE BASE STATION 103 SENDS FORWARD TRAFFIC FRAMES TO MOBILE STATION 112 AND RECEIVES REVERSE TRAFFIC FRAMES FROM MOBILE STATION 112
1670
RESCUE BASE STATION 103 SENDS REVERSE TRAFFIC FRAMES TO SOURCE BASE STATION 101
1680
CONTINUE

FIGURE 16